Standards of Public Land Health
Evaluation of 64026 ROCK TANK CANYON Allotment
[12/06/2006]

The Roswell Field Office conducted (RHA) Rangeland Health Assessments at 1 study site within Rock Tank Canyon, allotment #64026. This assessment evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of these field assessments. A summary of the assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64026-NORTH-E203	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Rock Tank Canyon, allotment #64026. Ten of these assessed soil site stability; 11 hydrologic function; and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on 1 trend plot location within the allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office, which include some or all of the following: ground and vegetative cover and composition, production, frequency and ecological condition. These collections which were initiated in the late 1970's/early 1980's are scheduled and conducted approximately every 5 years.

The Rock Tank allotment is approximately 17,397 acres in size and is divided into 5 main pastures. The Rock Tank pasture is the largest pasture (approximately 5262 acres) and contains the only study site on the allotment. This site was visited on March 21, 2007. The site is located with the Loamy CP-2 ecosite. According to GIS, much of the allotment is within the Very Shallow SD-3 ecosite.

Traveling through the allotment, it appears that soil is relatively stable; however, multiple gullies were observed in local draws. These gullies were always associated with the presence of a road or other constructed feature.

Except for disturbed areas, hydrologic function appears to be consistent with the respective ESD.

Biotic integrity appears to be intact. 2006 was a high production year with higher than normal late growing season precipitation. There was a good standing crop throughout the allotment. Loamy areas have become dominated by tobosa grass and are generally deficient in blue and black grama. Cholla is gaining a foothold in many of these areas. Other ecosites were not specifically visited, but traveling through the allotment, it appears there has been a shift in

species composition to a threeawn-dominated grassland. According to the permittee, mule deer are abundant on the allotment.

Following is a specific discussion of SITE 64026-NORTH-E203.

Soil is relatively stable. All indicators rate "slight to moderate" or "none to slight". Bare ground was somewhat less than expected for the ecosite, but there has been some soil loss as indicated by pedestalling in water flow patterns. Rills and gullies are present in the local draw, but are a result of a road crossing, a dirt tank, and cattle trailing. Vegetation is establishing in the bed, but active cutting is still occurring.

Except for the gully formation as described above, hydrologic function is near what is expected for the site. Herbaceous ground cover is slightly higher than expected for the site. Litter was evenly distributed throughout the site.

Most indicators assessing biotic integrity for the site fell into "slight to moderate" or "none to slight". Invasive Plants rated "moderate" due to cholla being widely scattered throughout the site and the presence of cockleburs in the local draw. Biotic crusts were intact throughout the area. Annual production was high. There has been a shift in grass composition. Tobosa grass dominates the site. Blue and black grama are minimal in the composition. Wildlife habitat is satisfactory for mule deer.

It is the professional opinion of the Assessment Team, public land within allotment #64026, Rock Tank Canyon meets Upland and Biotic Standards. There are no Riparian issues present therefore this standard was not addressed. See site notes, comments and recommendations for further information regarding this assessment.

Recommendations: Loamy areas within the allotment are dominated by tobosa grass with a noticeable reduction in other more desirable grasses. Prescribed burning or other disturbance (i.e. herd effect) followed by appropriate rest may help improve vegetative diversity. Consider alternating or changing the timing and duration of grazing to allow desirable forage plants to re-establish and reproduce. All roads on the allotment should be inventoried for failures related to runoff and erosion. Road related erosion in the form of gullies and other similar features should be prioritized for restoration and rehabilitated.

RFOs Upland and Biotic Standard Assessment Summary Worksheet			
SITE 64026-NORTH-E203			
Legal Land Desc	NWSE 12 0080S 0210E Meridian 23	Acreage	6397
Ecosite	070BY052NM LOAMY CP-2	Photo Taken	Y
Watershed	13060005070 SALT		
Observers	JACKSON; BRITTON	Observation Date	03/21/2007
County Soil	NM644 CHAVES	Soil Var/Taxad	

Survey	NORTH		
Soil Map Unit	RDB	Soil Taxon Name	REAGAN
Texture Class	NM644 SIL	Soil Phase	REAGAN-CONGER
Texture Modifier	NM644 SILT LOAM		
Observed Avg Annual Precipitation		Observed Avg Growing Season Precipitation	
NOAA Annual Precipitation	10.55	NOAA Growing Season Precipitation	8.18
NOAA Avg Annual Precipitation	9.73	NOAA Avg Growing Season Precipitation	8.01
Disturbances and Animal Use:	Cattle were in the area. Use was slight. The county road passes through the site. There is a dirt tank northwest of the tank in the adjacent draw. Cattle trails are evident.		

Part 2. Attributes and Indicators

		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills				X	
Comments:	Generally there are no rills, but rills have formed and continue to form in association with the adjacent draw. This is likely the result of the road that crosses the draw below the site and the presence of a dirt tank above the site.					
S H	Water Flow Patterns				X	
Comments:	Flow patterns are short and stable. There is evidence of minor erosion.					
S H	Pedestals and/or Terracettes				X	
Comments:	There is some active pedestalling and evidence of past pedestalling in flow patterns.					
S H	Bare Ground					X
Comments:	Bare ground is somewhat less than expected in the ESD.					
S H	Gullies				X	
Comments:	As a rule, gullies are uncommon, however, the local draw has active cutting that is likely the result of the road crossing, a dirt tank, and cattle trailing. Vegetation is establishing in the bed, but active cutting is still occurring.					
S	Wind-scoured, Blowouts, and/or Deposition Areas					X

Comments:						
H	Litter Movement					X
Comments:	No appreciable evidence of litter movement. Litter is evenly distributed.					
S H B	Soil Surface Resistance to Erosion					X
Comments:	Good soil aggregate stability.					
S H B	Soil Surface Loss or Degradation				X	
Comments:	Some soil loss has occurred.					
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:	Herbaceous ground cover is slightly higher than expected for the site.					
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:	There has been a shift in grass composition according to the ESD. Tobosa grass is by far the dominant grass. Blue grama and black grama are minimal in the composition. This indicator is trending toward "moderate".					
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount					X
Comments:	Equals or exceeds the ESD.					
B	Annual Production					X
Comments:	Late growing season precip was greater than normal in 2006. Production is at least 80% of potential.					
B	Invasive Plants			X		
Comments:	This is borderline with "slight to moderate". Cholla are scattered throughout the site, but are widely scattered. Cockleburs are common in the adjacent draw where active erosion is occurring.					
B	Reproductive Capability of Perennial Plants					X
Comments:	All grasses were able to produce seed in 2006, but this may be a factor in the reduction of desirable grasses in the composition. Timing and duration of grazing may have restricted reproductive capability of desirable forage plants.					
S	Physical/Chemical/Biological Crusts					X
Comments:						
B	Wildlife Habitat					X

Comments:	Habitat for mule deer is satisfactory. The permittee says there are lots of deer in the area.					
B	Wildlife Populations				X	
Comments:						
B	Special Status Species Habitat					X
Comments:	N/A					
B	Special Status Species Populations					X
Comments:	N/A					

Part 3. Summary

A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.

Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	0	5	5
H	Hydrologic	0	0	0	5	6
B	Biotic	0	0	1	3	9

B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the *Does not Meet* column, Moderate becomes *May Need More Info*, and Slight to Moderate and None to Slight merge to form the *Meets* columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.

Attribute	Rationale	Does Not Meet	May Need More Info	Meets
Soil	Soils are relatively stable. All indicators rate "slight to moderate" or "none to slight".	0	0	10
Hydrologic		0	0	11
Biotic	Most indicators rate "none to slight". Invasive Plants rates "moderate" due to cholla being scattered throughout the site and the presence of cocklebur in the disturbed draw. There has been a shift in grass composition from expected. Tobosa grass dominates the site.	0	1	12

Site Notes: This site only represents the Loamy areas of the allotment. Soils are relatively stable

with the exception of those areas affected by the presence of roads or other constructed features. There has been some soil loss as indicated by the presence of plant pedestals, particularly in flow patterns and bare areas. Vegetative diversity has declined from expected. Tobosa grass dominates the Loamy areas.

Determination of Public Land (Rangeland) Health for 64026 ROCK TANK CANYON

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on these assessments, it is my determination that public land within Rock Tank Canyon, allotment #64026, meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ EDDIE BATESON	08/24/2007
Assistant Field Manager	Date